



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,561

06/02/2006

Katsuhiro Ando

062554

5391

38834

7590

08/20/2008

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER

MOORE, MARGARET G

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

08/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,561	<b>Applicant(s)</b> ANDO ET AL.	
	<b>Examiner</b> Margaret G. Moore	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 to 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

Art Unit: 1796

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001-164237, as interpreted by the English language translation (machine generated, attached).

JP 2001-164237 teaches a sealing material that contains a silyl terminated polymer and a primary or secondary amine having a melting point of greater than 35°C. See for instance paragraph 5.

Paragraph 9 teaches polyoxyalkylene polymers. Paragraph 15 teaches the primary and secondary amines. Paragraph 16 teaches silane coupling agents. Paragraph 18 teaches epoxy plasticizers. Paragraph 20 teaches hindered amines, which will be tertiary amines. Thus each of the claimed components are disclosed in the patent.

Particular attention is directed to the working example found in paragraph 25. This differs from that claimed only in that 1) it contains a hindered phenolic antioxidant and 2) it contains a phthalate plasticizer. This example contains a silane coupling agent (B), a polyoxypropylene polymer having silyl groups (A) and an amine (E). This also contains the filler (G) found in claim 4.

With regard to the first difference, in view of the teachings on paragraph 20, the skilled artisan would have found the use of a tertiary amine antioxidant (which are well known in the art) in place of the phenolic antioxidant to have been obvious. With regard to the second difference, in view of the teachings on paragraph 18, the skilled artisan would have found the use of an epoxy plasticizer (which are well known in the art) in place of the phthalate plasticizer to have been obvious. Please note that it is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. The express suggestion to substitute one equivalent for

another need not be present to render the substitution obvious. In this manner the instantly claimed curable composition is rendered obvious.

For claim 2, note that separating the curable composition in this reference for storage purposes would have been obvious and, since amines inherently have the ability to function as a curing agent for epoxy resins, the skilled artisan would have found the separation of the amine components and the epoxy component to have been obvious. In addition, it would have been obvious to include a small amount of water in the composition in an effort to adjust the moisture curing ability of the composition and to ensure curing of the interior portion of the sealant. Since the silyl polymer (A) is moisture curable, it would logically follow to include the water in a separate package from the silyl polymer (A). In this manner the two part composition of claim 2 is rendered obvious.

For claim 3, paragraph 11 teaches that the viscosity is low and effects physical properties of the final composition such as elongation and modulus. Thus one having ordinary skill in the art would have been motivated to adjust the viscosity of the curable composition in an effort to adjust and/or optimize the final properties of the cured composition. In this manner the skilled artisan would have found the claimed range obvious.

On the other hand, adjusting the viscosity of this curable composition would have been obvious to the skilled artisan in an effort to optimize the viscosity of the sealing material and adjust the flowability of the final product.

3. Claims 1 and 3 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al.

Kimura et al. teach a composition that contains a silyl terminated polypropylene-oxide (column 4, lines 50 and on) , a silane adhesion promoter (column 11, line 50) or a silane stabilizer (column 11, lines 20 to 41), an epoxy compound (column 5, line 60), a tertiary amine (column 9, line 60) and a primary amine. Among the primary amines is diaminodiphenyl ether, which meets the melting point requirement in claim 1. Since each component is taught individually by Kimura et al., one having ordinary skill in the

Art Unit: 1796

art would have found a composition containing each of the components in claim 1 to have been obvious. For claim 3, see column 11, lines 42 to 45.

For instance, please see Example 7. This differs from that claimed in that it does not contain a tertiary amine and it does not use a primary amine meeting the claimed melting point temperature requirement. This does use a primary amine having a melting point of 12°C. It would have been obvious to one having ordinary skill in the art to use diaminodiphenyl ether rather than triethyltetraamine in view of the disclosure indicating that either can be used equivalently, as found on the bottom of column 6. In addition it would have been obvious to add a tertiary amine to the composition thereof in an effort to obtain the benefits and properties associated therewith, as noted on column 9. In this manner the claimed composition is rendered obvious.

With regard to claim 3, note that adjusting the viscosity of the curable composition of Kimura et al. would have been obvious to the skilled artisan in an effort to optimize the viscosity of the sealing material and adjust the flowability of the final product.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday and Wednesday to Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Margaret G. Moore/  
Primary Examiner, Art Unit 1796

mgm  
8/14/08